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VACAVALLEY RADIO CLUB

VACAVILLE , CALFORNIA

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August 2013

The Feedline

I'll try another feedline this month for the August newsletter, but as it stands right now, the usual will likely become "if I feel like it" newsletter blog. You got into amateur radio for what reason? It sounded like a fun hobby? You wanted to take part in emergency communications for a disaster? Or were you just curious? Any one of these question are valid and my answer relates to the last question seeing that I just wanted a better radio to receive the railroad frequencies since I like trains and no, not model trains, but the real "McCoy" ones.

I've been to all three (3) emergency communication classes held out at the ex-naval base in Alameda and after I pass both online FEMA courses, I will take the ECOMM test at an ARRL EB location so that I am certified as an A.R.E.S. amateur radio operator whose emergency communication skills could be put to good use during a disaster.

As any of you heard with my last net control operator gig since it was my turn on July 23rd, I did not follow the boring preamble monologue and decided to do what others heard although there has got to be a way to effectively filter out the digital noise that the Quincy radio club was busy using. But aside from the annoyance (and blasting out my ears because I was using my headphones), I had an otherwise enjoyable night on the air after the weekly net.

How so you ask? Well for starters, I'm up to 21 states out of the total 50 USA states, but I've added to my growing list of DX stations outside of the USA. On July 23rd, I managed to QSO with a ham in Lithuania, Honduras, Mexico

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Meeting notes

VVRC President, Marcus Maclean – KI6WDX, attempted to convene the board of director's portion of the July meeting at the Elmira firehouse, but without enough members present to form a quorum, it was suspended.

With just a couple additional members arriving, the general membership portion was opened at 19:30hr, but without key board members present, no reports were available, and since the evening's guest speaker failed to show, it was decided to change the meeting to an informal roundtable format.

The first topic of discussion was a suggestion by Marcus, that the Board of Directors meeting be held "off-site" and on a different night than the general membership meeting. That way, if time was needed for any issue, it wouldn't cut into the general membership time. The subject was tabled until the whole board was present.

The next topic of discussion was the repair of the Vine St. ramp. Marcus shared that after meeting with the Fire Chief, we know that the Fire District is operating on an extremely limited budget and there simply aren't any extra funds for the repairs. Any monies necessary for the materials or labor will have to come from outside the fire district. It's beginning to appear that if we want the ramp repaired for our use, then we – the VVRC - are going to have to "pony-up" and make it happen. One member suggested that we hold a swap meet at the Elmira station to raise money for this undertaking.

Another topic raised was the dream of assembling a "club station" at the fire station as a place for members to learn how to operate a common radio, and as a station that we could pack up and take to field events while representing the VVRC – ie. Field Day, or CQP, and others.

One suggestion made to this end was using what has previously been the Christmas dinner "door prize" drawing funds to purchase the equipment we'd need.

Marcus mentioned that while we are out at Elmira, we don't have the screens and projectors to view films, or

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Feedline-from pg-1..Cont

and the Canary Islands without the use of a tower or a beam or an amplifier. Just my Yaesu FT-450, my LDG tuner and my MFJ-1778 G5RV. That and a bit of effort to make the QSO's. A fair amount of QRN was on the 20 meter band including the fading effect. Calling the ham in Honduras was frustrating for the first 10 minutes because of no QSO acknowledgement and then another ham piped in about the guy was using split and then another 10 minutes ensued until we both QSL'd. About the same for the ham in Mexico although I could say that I had my radio skills max'd out in every QSO attempt. So let's see:

I now have Haiti, Mexico, Swains Island, Canada, South America, Canary Islands, Spain, Austria, West Africa and Lithuania and despite both Hawaii and Alaska being part of the 50 USA states, I have a confirmed QSO with them as well since they are both considered DX. That's 12 DX QSO contacts if one were to include the two USA states. So 21 USA states and 12 DX QSO's all since March tells me I must be doing something right and frankly, if I can make the QSO's with such meager radio gear, how many other club members are doing the same thing?

So when you make a QSO, take some time to write a brief letter to the club newsletter editor (jerrybowen@earthlink.com) so he can insert your news into the monthly newsletter unless that is you somehow don't feel any QSO is worthy of others reading about your time and effort which does nothing but cause stagnation within the club. There are five other club members who freely exchange their QSO efforts and I for one would love to have our group go to a beach along the coast somewhere and set up our radio gear for a fun day on the beach making as many QSO's possible since sea water is a great conductor of electrical energy!

So come out to the next VVRC club meeting at the Elmira fire station which will start at 7:30 pm. Not at the usual 7 pm start time, but at 7:30 pm. I am bringing a CD disk that has a few worthwhile ARRL videos and the hope is to have a large viewing screen be it a video monitor or a movie screen since the Elmira location does not have the audio-video equipment like what is at the Vine Street VVFPD building that this club was using until the ramp was declared a safety concern and was tagged as such.

Be well and involve yourself in amateur radio!

Marcus K. Maclean, KI6WDX, President

Meeting notes from pg-1..Cont

computer graphics, but he was reminded that we do have a projector in the file cabinet at Vine St., and Skip volunteered to bring a projection screen if needed, or, we could always use a white sheet pined to the carpeted corner of the Elmira meeting room.

After ample lively discussion about these topics, the meeting was adjourned at 22:00 hr.

Respectfully submitted, Skip Lawson – AF6HC

VACA VALLEY RADIO CLUB--2013

ELECTED OFFICERS

President: Marcus K. Maclean, KI6WDX
Vice President: Chris Jones, KD7TQO
Secretary: Skip Lawson, AF6HC
Treasurer: Bob Hewitt, K6HEW

BOARD OF DIRECTORS

Director: Skip Lawson, AF6HC
Director: Antonio Del Rio, N6GZB
Director: Arthur Miller, KI6UXE
Director: Richard Craig, KJ6MIB

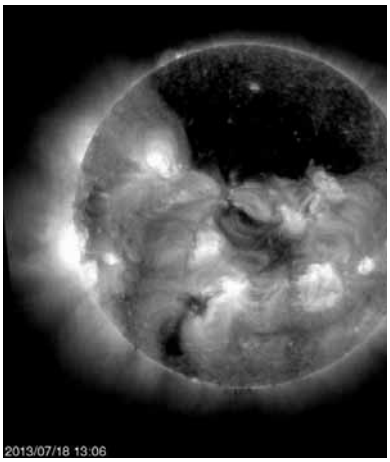
APPOINTED POSITIONS

Net Control Chairperson: Chris Jones, KD7TQO
Club Activities Chairperson: Board of Directors
Newsletter Editor: Jerry Bowen, KJ6SCC
Newsletter Publisher & Distributor: Bob Hewitt, K6HEW

A Ham's Dream Wife??!!

Made any strange contacts lately??

Spacecraft Sees Giant 'Hole' In the Sun



A space telescope aimed at the sun has spotted a gigantic hole in the solar atmosphere. It's a dark spot that covers nearly a quarter of the sun and is spewing solar material and gas into space.The so-called coronal hole over the sun's north pole came into view between July 13 and 18 and was observed by the Solar and Heliospheric Observatory, or SOHO. NASA released a video of the sun hole as seen by the SOHO spacecraft, showing the region as a vast dark spot surrounded by solar activity.

Coronal holes are darker, cooler regions of the sun's atmosphere containing little solar material. In these gaps, magnetic field lines whip out into the solar wind rather than looping back to the sun's surface. Coronal holes can affect space weather, as they send solar particles streaming off the sun about three times faster than the slower wind unleashed elsewhere from the sun's atmosphere according to a description from NASA.

These holes are not uncommon, but their frequency changes with the solar activity cycle. The sun is currently reaching its 11-year peak in activity, known as the solar maximum. Around the time of this peak, the sun's poles switch their magnetism.

In 1989 a smaller flare wiped out Hydro Quebec's Electrical Grid leaving many Canadians without power for an extended period. A Class X flare (the most powerful kind) sideswiped the earth back in May.

Most of these will miss us. But the consequences of being hit are serious. And there's also the possibility that an enemy nation might detonate a nuclear weapon at high altitude over the United States, generating a similar effect via a nuclear ElectroMagnetic Pulse (EMP).

There is a bill in the hopper aimed at doing something to harden our electrical grid systems and prepare for such events. It's called the Secure High-voltage Infrastructure for Electricity from Lethal Damage Act (SHIELD Act for short). It is aimed at seeing that the U.S. electrical grid is protected to prevent damage in the event of either a solar storm or EMP attack or major solar flare.Unfortunately, President Obama is ignoring the attempts to fix the problems

A very informative, and frightening, video of Fmr. CIA Dir. Jim Woolsey warning of an existential EMP threat to America was filmed regarding the dangers of the EMP problems. It's about an hour long and can be viewed at (**http://www.youtube.com/watch?v=9_8LNrOwOqU**).

In the May edition of the *Repeater* I discussed the possibilities that an electromagnetic pulse (EMP) striking somewhere on the planet for various reasons and possibly disabling the power grid and or any electronic equipment containing transistors and chips. Then Skip Lawson, AF6HC, passed along to me A way of protecting the affected equipment that is simple and easy to build using of all things, a trash can! I placed a short article about it in the June issue. A You Tube video can be viewed at (**www.youtube.com/watch?v=EoQZY1ftI3c**).

I have a brand spanking new metal garbage can and the cardboard. Now all I need is the time to be able to put it together.

In addition I plan to place the equipment in those bags you vacuum the air out of to further protect the units from dust and additional insulation from the metal can.

Jerry Bowen, KJ6SCC

THE VVRC WELCOMES YOU

The Vaca Valley Radio Club has proudly served the Northern Solano County Area since 1988. We pride ourselves in providing a friendly place for radio amateurs to meet and improve their operating skills.

We participate in public service events throughout the year and are always ready to assist with communications during times of emergency.

Browsw our website for more information about our club. If you have any questions please e-mail us at w6vvr@w6vvr.net or call 707-448-5665 for assistance

The Repeater is Published by the Vaca Valley Radio Club, PO Box 143, Elmira, CA 95625-0143, An ARRL Affiliated Club. Founded 1987, Chartered 1988. General Meetings: 2nd Thursday of each month at 7:30 PM 420 Elmira Fire Station.

Wheelchair accessible

Visit the Repeater online courtesy of Bob K6HEW at: vacavalleyradio.net

Club repeater in Vacaville:W6VVR 145.470 MHz(-) pl 127.3
The W6VVR net call is Tuesday evenings at 8pm on the club repeater. All are invited to participate in this weekly meeting on the air. 73!

Additional local repeaters
WV6F 224.200(-)
WV6F 440.025(+)
WV6F 1291.900(-)

"Ham"- a term with a complicated history

Ham. Amateur radio operators are often referred to as "hams"—a term with a complicated history. At the start of the 1900s, "ham" was sometimes used to refer to someone as "unskilled"—"Ham actor" being the most common example.

Wire-line telegraphy employees at this time had a rich vocabulary of insults for describing less-than-capable operators, and in The Slang of the Wire section of "Telegraph Talk and Talkers", from the January, 1902 issue of *McClure's Magazine*, author L. C. Hall noted "It is an every-day thing to hear senders characterized as Miss Nancys, rattle-brains, swell-heads, or cranks, or 'jays,' simply because the sound of their dots and dashes suggests the epithets." Hall's review further noted that "senders of hog-Morse, called technically 'hams' " were known for their propensity for transmitting garbled Morse code.

So it was natural, in light of wire-telegraph practice, for commercial stations to dismiss amateur radio operators as "hams"—and in Floods and Wireless by Hanby Carver from the August, 1915 *Technical World Magazine* the author noted "Then someone thought of the 'hams'. This is the name that the commercial wireless service has given to amateur operators..."

But, interestingly, "ham" would eventually lose its negative meaning and become a general nickname for all amateurs. This evolution was spotty and not very well documented. As early as the May, 1909 Wireless Registry list in *Modern Electrics*, Earl C. Hawkins of Minneapolis, Minnesota was listed with the call sign of "H.A.M." This call sign was likely assigned by the magazine—this was before the U.S. government began licensing stations and issuing call signs—but was this an inside joke or just a coincidence?

In two articles by Robert A. Morton, Wireless Interference, in the April, 1909 *Electrician and Mechanic*, and The Amateur Wireless Operator, in the January 15, 1910 *The Outlook*, the author included an overheard transmission between amateur stations asking "Say, do you know the

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NET CONTROL OPERATORS

1st week of month-Jerry Bowen; KJ6SCC
2nd week of month-Richard Craig; KJ6MIB
3rd week of month-Chris Jones; KD7TQO
4th week of month-Marcus MacLean; KI6WDX
On months with 5 weeks-Bob Hewitt; K6HEW

THE BIT BUCKET

1). I thought I would start a column to air different thoughts and to pass on questions, and bits of info to the members.

One of the things that I have been doing is to download videos that might interest some of the members. If anyone would like to have copies, I can bring a computer to the club meetings and make copies for them: Members to provide their own CD or DVD. Or....If you would like to download videos yourself, just go to [**www.kepvid.com**]. This free app is so easy to use that all you have to do is copy and paste the video's URL in the small box at the top, hit download, select the format you want it in and you have it. Here's a list of some that I have placed on a single CD so far.

- WLW's 500,000 Watt Transmitter
  Narrated by Ham Operators…Imagine a Modulation transformer that weighs 36,000 pounds!
- Build a 6 meter Portable Dipole by N7JFP
  Made with inexpensive parts in the form of a buddypole
- Former CIA Director Warns of EMP Threat to America
  Threats from the sun, Al Qaida, Korea etc. Ways to protect the Electrical Grid
- Herman Munster as a Ham Radio Operator
  Short amusing clip
- RHex the Robot
  Interesting clip of a small robot that can go virtually anywhere

2). In the last newsletter I mistakenly said that "Former VVR Club member honored by the Vacaville Rotary Club." I shoulda checked the roster….He is still a VVRC member. **My apologies to Mike Vieira**!

3). Now that the Board of Directors meeting will be held at a different location and time, will an agenda be sent to the members for the following regular meeting so they can comment and have some input? Note: Section 16 of the VVRC Constitution states: "Any person may attend a Board of Directors meeting."

4). Anyone who has anything they would like to comment on for the good of the club is urged to send their thoughts to me for this column. Use my e-mail at [jerrybowen@earthlink.net].

Jerry Bowen, KJ6SCC

Changing a Crystal's Frequency

While I was at the Sacramento ham fest, I bought two quart jars full of crystals for five dollars. I didn't know what frequencies they were but what the heck…take a chance. I did find a few that were somewhat close to the ham bands and that got me to thinking back to my early days as WN6BIB.

When I first got my novice license in 1953 I was only allowed to use crystal-controlled transmitters. Being only 14 at the time I didn't have much money so I built or modified most of my rigs from salvaged or surplus parts.

I lived in San Lorenzo and the Oakland Airport wasn't very far away. It had a great surplus store where I constantly hunted for cheap parts. Crystals were very reasonable but not at frequencies that I could use.

An old timer taught me how to change the frequency of a crystal from a lower frequency to higher frequencies. So with that in mind I bought a few and went to work.

All I needed was a piece of plate glass, toothpaste, some water and of course a crystal that was somewhat near the frequency range I wanted. I also built a simple one-tube crystal oscillator to use for checking the frequency.

I disassembled the crystal case and carefully removed the crystal itself.

I spread some of the toothpaste onto the glass and thinned with a little water.

Then I laid the crystal onto the paste and started making figure eight motions while holding the crystal down with a light pressure of my forefinger.

It was a tedious process but when you couldn't afford to buy what you wanted , you did what you could. If I remember right, crystals in the fifties were fairly expensive…at least for me at three to five bucks apiece. I could get several surplus crystals for a dollar.

At different times I would reassemble the crystal and plug it into the oscillator and check the frequency with a nearby receiver. It took a lot of grinding and checking but I was successful many times. I did crack a few during the "grinding" process but it went with the territory.

I wondered if any hams were still changing frequencies of crystals so I hit the net and sure enough there were many improvements in the process including making big frequency changes.

The video I liked best was by Bob Sumption, W9RAS and titled Grinding and Etching FT-243 Crystals. You can view it at:

http://www.youtube.com/watch?v=j7CS4A8wB1E

The video is described as "a better innovative method of grinding and etching surplus radio FT243 crystals. Crystals are available on Internet auction sites and at Amateur Radio (Ham) Hamfests . Crystals can be moved UP in frequency only with these techniques."

1961 CQ Magazine Crystal Ad

One of the things I especially liked about his techniques is being able to change the frequency of a crystal anywhere from one to ten kilohertz overnight using a 3% solution of hydrofluoric acid. Note: hydrofluoric acid can be dangerous even in this dilute form.

I won't attempt to go into the specifics about the technique because it is best to actually watch the video. He even recommends a readily available rust and stain remover that is the correct solution of hydrofluoric acid to use.

I know it will take some time but it's something I enjoy doing. I'm thinking of obtaining a crystal controlled QRP transceiver and it would be nice to have a load of crystals for whatever frequencies I might use.

Jerry Bowen, KJ6SCC.

VACA VALLEY RADIO CLUB LEDGER

JUNE 2013

ACCOUNT SUMMARY

DESCRIPTION OF TRANSACTION	GENL FUND	REPTR FUND	PRIZE FUND	ARRL	PROJ FUND	ENDING BALANCE
BALANCE FORWORD =	2076.40	834.00	0.00	0.00	0.00	2910.40
ACCOUNTS PAYABLE, TOTALS	53.25	0.00	0.00	0.00	0.00	53.25
ACCOUNTS RECEIVABLE, TOTALS	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL OF ALL FUNDS	2023.15	834.00	0.00	0.00	0.00	**2857.15**
TOTAL THIS YEAR		**218**				

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fellow who is putting up a new station out your way? I think he is a ham."

However, "ham" took a while to completely lose its negative connotations. A letter from Western Union employee W. L. Matteson in the December, 1919 issue of *QST*, Why is an Amateur?, complained that amateurs, now regulated by the government, were not getting the respect they deserved, noting that "Many unknowing land wire telegraphers, hearing the word 'amateur' applied to men connected with wireless, regard him as a 'ham' or 'lid'." But in the next month's issue, Thomas Hunter's exuberant "pome", I am the Wandering Ham, showed that other amateurs had already embraced "ham" as a friendly description for their fellow hobbyists.

PLEASE RENEW YOUR MEMBERSHIP

VACAVALLEY RADIO CLUB, INC.

Please Print & Fill in Completely MEMBERSHIP APPLICATION / RENEWAL FORM Dues are delinquent January 1st

Name: _____ Call Sign_____

Street: _____

City: _____Zip: _____

Phone: (_____) _____-_____OK to Publish ?(_____)

License Class: _____ ARRL Member ?(_____)

E-Mail Address_____

FAMILY Member (Spouse or Children)

Name: _____ Call Sign_____
License Class: _____ARRL Member ?(_____)

Name: _____ Call Sign_____
License Class: _____ARRL Member ?(_____)

MEMBER Dues $20.00
Each Family Member $ 2.00
Student $ 5.00
Repeater/Autopatch donation
Call/Name badge $11.00

Optional ARRL membership
ARRL dues $37.00
Total

Paid by CASH: Check #

DATE:

Mail to : Vaca Valley Radio Club, PO Box 143, Elmira, CA 95625-0143